

REMARKS

Reconsideration of the present application is respectfully requested. No claims have been amended, canceled or added in this response. Therefore, claims 1-7, 10, 12, 14-18 and 27-30 are now pending.

Request for Telephone Interview

Applicants respectfully request that the Examiner contact the undersigned at (408) 720-8300 to schedule a telephone interview, in the event the Examiner does not find the present application to be allowable after considering this response.

Summary of Office Action

Claims 1, 6, 7, 14, 16 and 27 stand rejected under 35 U.S.C. § 102(b) based on U.S. Patent no. 5, 819, 292 of Hitz et al. ("Hitz"). Claims 2-5, 10, 12, 15 and 17-18 stand rejected under 35 U.S.C. § 103(a) based on Hitz in view of U.S. Patent no. 6,038,570 of Hitz et al. ("Hitz_2").

Applicants' Response to Examiner's "Response to Arguments"

Applicants' last response (filed on 1/11/2007) explained in detail why Applicants believe that the Office's reading of Hitz onto Applicants' claims is incorrect. But while the Office deems that explanation to be "unpersuasive", the Office provides **no acknowledgement of or rebuttal** in the present Office Action to the specific points raised in Applicants' last response. Instead, the Office essentially **repeats verbatim** the Office's lengthy characterization of Hitz from the previous Office Action.

Further, the only mention of Applicants' arguments in the present Office Action is a complete mischaracterization of what Applicants argued. In particular, on page 2 of the present Office Action, the Office states: "Applicant argues (under REMARKS section) that, Hitz does not disclose: (a) A method for improved space allocation in a file system having a set of storage blocks in a mass storage system, including maintaining an active of said storage blocks not available for writing data." However, **that clearly is not what Applicants argued**, as even a cursory reading of Applicants' last response will reveal (see pages 7-9 of that response). The aforementioned statement by the Office is immediately followed by the essentially verbatim repetition of the Office's previous characterization of Hitz. Applicants find no new explanation or clarification of the rejection in the present Office Action, much less any response to the specific arguments raised in Applicants' last response.

The Office's complete mischaracterization of Applicants' arguments, coupled with the Office's failure to specifically address Applicants' actual arguments, raises a genuine question about whether the Office has given any real consideration to Applicants' last response. Applicants therefore respectfully request that the Office carefully reconsider their arguments, which are repeated substantially below for the Office's convenience.

Discussion of Rejections

Applicants have carefully reviewed the stated basis for the rejection, and Applicants respectfully maintain that the rejection is improper.

Claim 1 recites, *inter alia*, the limitations:

generating, for each one of a plurality of regions of said storage blocks in said mass storage system, a value indicative of a number of storage blocks available for writing data in said region, based on said active map and at least one snapshot of the file system, each said region including a plurality of storage blocks in the active file system and a plurality of storage blocks in each of said at least one snapshot . . .

Hitz does not disclose or suggestion this functionality. Note that claim 14 also recites similar limitations.

The Examiner interprets the block map (“blkmap”) file in Hitz as representing the “active map” in Applicants’ claims 1 and 14 (present Office Action, page 3, lines 19-20; p. 4, line 12). The Examiner also interprets the blkmap in Hitz as representing the “values” recited in Applicants’ claims 1 and 14 (present Office Action, page 4, lines 7-16). Applicants respectfully submit that the rejection is incorrect under that interpretation or any reasonable interpretation of Hitz.

The above-noted limitation in claims 1 and 14 requires that the recited “value” is generated **based on the active map**. Therefore, the blkmap in Hitz cannot represent both the active map of Applicants’ claims 1 and 14 **and** the “values” recited in those claims (per the Examiner’s interpretation), since Applicants find no suggestion in Hitz that any value in Hitz’s blkmap is generated **based on** the blkmap itself. For at least this reason, therefore, Hitz does not disclose or suggest, per claims 1 and 14, generating, for each one of a plurality of regions of said storage blocks in the mass storage system, a value indicative of a number of storage blocks available for writing data in said region, **based on said active map**. Therefore, the rejection of claims 1 and 14 is improper and should be withdrawn.

In addition, claims 1 and 14 provide that **each of said “regions”** of storage blocks includes **a plurality** of storage blocks in the active file system **and a plurality** of storage blocks in each of said at least one snapshot. This limitation further distinguishes the present invention from Hitz. **Note that this limitation does not just mean that the active file system and the snapshots each have a plurality of blocks:** Per claims 1 and 14, each of the “regions” in this limitation must be a region for which a value has been generated indicative of a number of storage blocks available for writing data in said region, based on said active map and at least one snapshot of the file system.

In contrast, the blkmap in Hitz contains a 32-bit entry for each 4 Kbyte block in the system. Within each 32-bit entry, one bit corresponds to a **single block** in the active file system, and each other bit in that entry corresponds to **that same block** in a particular snapshot. Col. 9, lines 50-53; col. 10, lines 7-11. Thus, each 32-bit entry in Hitz’s blkmap represents **only a single 4 KB byte block** in the active file system and in each snapshot, **not a plurality** of storage blocks in the active file system and in each snapshot per claims 1 and 14.

Therefore, Hitz also does not disclose or suggest, per claims 1 and 14, generating, for each one of a plurality of regions of said storage blocks in the mass storage system, a value indicative of a number of storage blocks available for writing data in said region, **based on said active map** and at least one snapshot of the file system, **each said region** including **a plurality** of storage blocks in the active file system and **a plurality** of storage blocks in each of said at least one snapshot. For this

additional reason, therefore, the rejection of claims 1 and 14 is improper and should be withdrawn.

Therefore, independent claims 1 and 14 are neither anticipated nor obvious based on the cited art. As such, claims 1 and 14 and all claims which depend on them are allowable over the cited art.

Dependent Claims

In view of the above remarks, a specific discussion of the dependent claims is considered to be unnecessary. Therefore, Applicants' silence regarding any dependent claim is not to be interpreted as agreement with, or acquiescence to, the rejection of such claim or as waiving any argument regarding that claim.

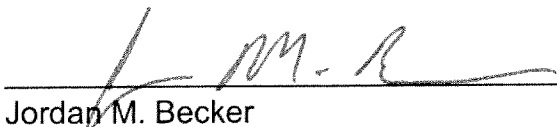
Conclusion

For the foregoing reasons, the present application is believed to be in condition for allowance, and such action is earnestly requested.

If there are any additional charges/credits, please charge/credit our deposit account no. 02-2666.

Respectfully submitted,
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

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Jordan M. Becker
Reg. No. 39,602